TENNESSEE FARMER

How much more delightful to an unlebauched mind is the task of making improvements on the earth than all the vain glory which can be acquired from ravaging it, by the most uninterrupted career of conquests."—WASHINGTON.

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TENNESSEE FARMER.

Jonesborough, October 1839.

Sheep Husbandry.

NUMBER I.

So indispensable to the comfort and necessities of man are each and all the races of domestic animals, that it is difficult to say which we could best do without, or which stands highest in the scale of their comparative value. So true is this, that when we enumerate the good qualities of any one in particular, we are apt to think, for the moment, *that* the most useful and indispensable. Without the aid of the noble horse, we could not farm the grounds which yield us our daily sustenance, nor perform the distant journey with despatch and safety, nor do the ten thousand other things necessary to be done in times of peace and war. Surely we never *could* get along without the generous horse! But the faithful cow which supplies us with such a variety, and so large a portion of our necessary food, and ministers, in so many ways, to our wants and our enjoyments, how *could* we think of parting with her? The humble, but invaluable hog is almost equally indispensable in his place. What *would* we do, if denied "the sempiternal ham," and the collateral members constituting "the body corporate" of the portly porker, which subsist so large a part of our population during so great a portion of the year! Second to none, however, in the variety and importance of its uses and value, the meek and harmless sheep is alike inestimable in administering to the necessities and luxuries of life. Its fleece furnishes the material of those warm, soft fabrics which shelter us from the cold of winter, and constitute an important portion of the dress of other periods of the year; its flesh is one of the cheapest, most healthful and luxurious of meats for the table; and the skin and other parts of the animal afford a number of other useful and important articles, such as leather, parchment, glue, suet, &c., &c. If to these we add that the sheep furnishes the raw material for one of the heaviest, most extensive and important manufactures of this and other countries, constituting a large item in the resources and commerce of the nations of the earth, this little animal assumes an interest and importance, which places it in the front rank of those objects deserving the fostering care of Governments, and the notice and action of the practical agriculturist. It might be fairly inferred from the practices of farmers in this end of the State, that they considered the sheep the most worthless and unimportant of all our domestic animals. Less attention is paid to it here, where too little attention is paid to all our stock, than to any other animal on the farm. It is generally left to take

care of itself; frequently turned out from the plantation into the woods, to seek a scanty subsistence there; and, in many instances, scarcely fed at all throughout a great portion of the winter months. And yet, in spite of these adverse circumstances, almost every farmer has his flock of sheep, which clothes himself and family, and often leaves a surplusage of material for exportation, or for the substantial blanket and comfortable home-made carpet! We regard this fact as the clearest possible proof that our State (particularly this end of it) is highly adapted by nature to the successful and profitable production of wool; and that were a better system adopted with the improved breeds which ought to be introduced, wool-growing might, very soon, become an important and highly lucrative branch of our agricultural systems.

There are large tracts of rough, hilly land in our State which can scarcely ever be turned to any valuable purpose but grazing. If enclosed and sowed with the artificial grasses, they would be admirable for the rearing of black cattle as well as sheep. But if merely enclosed, the natural grasses would sustain large flocks of the latter with the greatest advantage and profit to the farmer. The lands that might be thus redeemed for sheep walks, and so made a source of income to the farmer, are extensive almost beyond estimate. Fully stocked with the improved breeds of sheep, there is no calculating the vast increase that would accrue in the wealth and resources of the State, and the independence and prosperity of the farming community.

We are inclined to the opinion, moreover, that our salubrious climate is, peculiarly propitious to the rearing of sheep; and that they are exempted here from many of the malignant diseases to which they are sometimes addicted in other less favored regions. The murderous dog does, indeed, sometimes commit considerable havoc in our flocks; but excepting from this cause and old age or starvation, we seldom hear of any great mortality among them. Breathing the free air, and wandering over the dry soils of our highlands, with pure water to drink and healthful herbage (what there is of it) to crop, disease is unfrequent among them, and their growth rapid and vigorous.

There need be no fear, either, of finding a fair market for any amount of wool we may be able to grow in many years to come. The production of the raw material would, no doubt, encourage the erection of manufactories, whose fabrics could be had without the heavy tax upon the consumer, now necessarily paid for the transportation of imported woollens. We understand that such an establishment is already in contemplation, if not in actual course of erection on the waters of Mossy creek, Jefferson county, and that it will open a market for the wool-grower of that region, which we have no doubt will stimulate the farmer to increase and improve his flocks. Other manufactories will no doubt grow up with the progress of the enterprise; but, even if this should not be the case, there are not many of our products that will bear exportation better than wool.

But besides the fleece, we ought to multiply the sheep for its excellent flesh. There is no meat more healthful, and (prejudice aside) more luxurious to the palate than mutton. From the earliest ages of the world, and through every successive generation since, it has been an important and prized article of human diet, in almost all the nations of the earth. In that land of good eating, England, whilst it is an indispensable luxury at the tables of the noble and the wealthy, it is the principal, and almost only, animal food consumed by the poorer classes; and in the Northern regions of our own country, its consumption is very considerable, and still increasing. But with us it is a comparatively rare article. Many are prejudiced against its use, whilst others do not take the trouble to estimate the much cheaper rate at which it may be produced than pork or beef. It is highly desirable, not only because of its great intrinsic value, but as a convenient addition, by way of variety, to our usual animal food, that its consumption should become general and common. There cannot be a doubt that our climate and grasses are well adapted to the production of excellent mutton. Our native breeds produce superior meat, which may, no doubt, be highly improved in quality and quantity, by judicious crosses with the improved varieties.

In order to realize the highest profits in the rearing of sheep, the improved breeds should be

procured, not forgettiug to select those best adapted to our region of country, the habits of our people, and the agricultural systems which prevail here. If our present mode of managing sheep cannot be changed, it might well be questioned, whether our scrub breeds are not as good as any we could rear. Inured to hardship and short keep, they have necessarily acquired an adroitness at taking care of themselves, which is now characteristic and hereditary. It is utterly in vain to introduce the high-blooded cattle, the improved hog, or the superior breeds of sheep, with the expectation that *the breed alone* will obviate the necessity of liberal keep or vigilant and persevering care and attention. If not as well fed and tended as before their importation, they will assuredly dwindle and degenerate, until scarcely discernible, in any desirable respects, from our scrub stock. We do sincerely desire to witness the introduction of the improved races of domestic animals into our State, naturally adapted as it is to stock-raising. But we also hope to see this laudable enterprize of our fellow-citizens followed out with a determination to afford the imported breeds the same opportunity of showing their superiority which they enjoyed in the regions whence they are transferred. As they pay so much better for full feeding and good care than the ordinary stock, it will be very strange, indeed, if the farmer does not take the course, with regard to them, which his interest so clearly indicates. Our policy, in this matter, would seem to be, to substitute the improved, for our present, stock, so far as we may have the means of keeping them well; but not rashly to increase these importations beyond the extent of these means; diligently preparing, in the mean time, for the multiplication of the improved stock, the rearing of which will, as it no doubt ought to be, before many years, the great business of our farmers, throughout the State.

The different breeds of sheep in the various countries where they are found, are almost innumerable. Even in England, the varieties, in their many shades of intermixture, can scarcely be counted; and in the United States, besides our native sheep* (so called) there are a goodly number of the different improved breeds of other countries.

Among these are the celebrated *Spanish Merinos*, first imported into this country in 1801; and which, during our non-intercourse with Great Britain in 1808 and 9, when manufacturing and wool-growing were so much talked of, attracted such interest and attention, that they were sold at from 1000 to 1400 dollars a head. These exorbitant prices did not last long; subsequent numerous and large importations following, and some of the cargoes bringing with them some of the worst diseases of the ovine races, they were speedily reduced to one-fiftieth part of their former prices. In the course of these events, however, it was ascertained that they could be readily acclimated, and that their fleece did not deteriorate in this country, as had been apprehended; and the prices have since fluctuated with the vicissitudes which have attended our manufacturing interests. The Merino is a docile, patient animal, weighing from 8 to 10 pounds to the quarter, and yielding from 3½ to 4 pounds of fine wool at a shearing. Although a native of a warm climate, it has been acclimated as far North as Sweden, without deteriorating in form or fleece. The mutton of the Merino is not considered good; though some contend that if killed at a proper age, it is of ordinary grain and flavor. It lives to a greater age, by two or three years, than the common sheep, and is correspondingly slow in reaching maturity. The Merino is somewhat difficult to breed, the ewes not being good nurses. Eighty lambs out of one hundred dropped, is the average number reared.

The *Saxon* sheep, now so popular in this country, is directly descended from the Spanish Merino, which it closely resembles in many points, but excels in the fineness and beauty of its fleece, in which it is unrivalled. The origin of this variety is briefly as follows: In the years 1765 and 1777, the Elector of Saxony made two importa-

*There is, properly speaking, no native American sheep. The Argali (or Big-Horn) of the Rocky Mountains, is the only animal of the genus *ovis*, indigenous to North America; and although naturalists have classed the Argali and the domesticated sheep under the same generic head, yet there is, now, but little resemblance in their shape, covering or habits. The European sheep is a mongrel intermixture of various English breeds, imported by the early settlers of this hemisphere.

tions of the Merino sheep from Spain, selected, with extraordinary care and judgment, from the Escurial (the finest) flocks of that country. The same extraordinary care was observed in the tending and improvement of these animals, and the result is, that, although the parent stock of both is the same, yet while the best Spanish wool has sold in the English market at 2*s.* 6*d.* to 4*s.*, the Saxon brought, in fair competition, 4*s.* 9*d.* to 5*s.* 3*d.* per pound; a fine illustration this of the importance and profit of extra care and attention in the rearing of stock. The fleece of the Saxon, in good flocks, is said to average, in this country, about 2½ lbs. Like the Merino, it is docile, long-lived, slow in reaching maturity, and deficient as a breeder; but its mutton is said to be of better color and quality. It is, perhaps, proper that we should remark here, that, according to the testimony of a Mr. Grove before a committee of the New York State Agricultural Society, the first and principal importations of Saxon sheep into this country (in several of which he had a personal agency) were largely intermixed with impure and inferior blood, and that although the result of this intermixture (which has been very general) is a breed of superior fleece and qualities, yet there are comparatively few flocks of the pure-blooded Electoral Saxons in the United States.

Another breed which has been very celebrated in England (where it originated) and in this country, is *the New Leicester or Bakewell sheep.* It was bred to its present good qualities, with consummate skill, by the gentleman whose name it bears, from the old Leicester, "a large, heavy, coarse-wooled sheep, inhabiting the midland counties of England." This variety is chiefly valuable for its mutton. The wool is long and coarse, and yields, at an average, about six lbs. at a shearing. It has a heavy, well-formed carcase with small bone and offal; and is unrivalled for early maturity, and wonderful aptitude for taking on fat. It requires, however, full feeding for the perfection of its good qualities, and is a bad traveller. At two years old, the wethers weigh from thirty to thirty-five pounds to the quarter.

The *South Down* is another English sheep, possessing many good qualities to recommend if to the notice of breeders. It is of medium size, yielding about three and a half pounds of good wool; but is reared mainly in England for its exquisite mutton, which is preferred by the gourmands of London to all that is offered in the markets of that mutton-loving population. Like the Bakewell sheep, it takes on flesh readily and rapidly. Its weight is about twenty to twenty-five pounds to the quarter; but highly fed, attains a much greater weight. The South Down possesses the additional good qualities of patiently enduring hard-stocking, is healthy and hardy, gentle and quiet in its habits, and but little disposed to wander, although industrious in its search for food. The ewes, moreover, breed well, and are good nurses.

We might here particularize other valuable breeds, such as the Cotswold, Lincoln, Cheviot, &c., &c. But the four described above are now the popular, and no doubt the most valuable varieties; from which the breeder must select according to his tastes, and the peculiarity of his location and circumstances. If wool is his object, the Saxon offers the finest and most beautiful. If he wants the largest amount of good mutton, he must breed the Bakewell. And if he wishes a hardy, thrifty sheep, valuable alike for its flesh and fleece, that can endure occasional scanty fare, and withstand the cold and snows of winter, the admirable South Down offers peculiar inducements in the direction of his choice.

We may remark generally in relation to this branch of our subject, that the finer the wool, the more delicate is the constitution of the sheep, and vice versa; a principle, which if it be not regarded in the choice of breeds, ought assuredly to receive the most particular attention in the rearing and management.

A few more remarks in relation to the breeding and management of sheep, we reserve for a future number.

The meeting of our Legislature.

The Legislature convenes on the first Monday of the present month; and its assemblage is looked to with great interest from all parts of the State. Many are deeply concerning themselves about the offices it has to confer, and the patronage to bestow. The battles of party are then and

there to be tought over again, and the victors will have a great ado to hit upon the wisest methods of using their present, to secure their future, power; while the vanquished will be vigilantly watching to catch at any spoke in the wheel of circumstances, which may promise to elevate them to the vantage ground they have lost.—Companies and corporations will be asking for charters, privileges and immunities. Individuals will be electioneering for the passage of laws which may subserve their own personal interests; and others, from like patriotic motives, will be seeking the repeal of statutes already in existence. Some of the members will be making elaborate efforts to perpetrate tremendous speeches "to astonish the natives" at Nashville; not a few of whom, after all their toil and perspiration, will very sagely conclude that "all is vanity and vexation of spirit." "A great multitude whom no man can number," will make it a chief object of their sojourn at the metropolis, to find out the "ways and means" of perpetuating or increasing their popularity at home. Another class will consist of those who are willing to follow where their probosces lead them, whether these are at their own discretion, or in the hands and under the guidance of the more artful and designing members. Other like lofty and magnanimous motives and influences will, no doubt, have their share in operating upon the councils of the State; and the business of the session will no doubt open and progress with all "the pomp and circumstance of"—office!

But in the midst of all these little passions belonging to self and party, which, it certainly is not uncharitable to predict, will influence some of those to whose hands are, temporarily, confided the destinies of the State, will there be none to stand up for the great interests of the commonwealth, and to direct the current of legislation to those objects most naturally, obviously, and urgently demanding it? Among the first of these objects—first in its intrinsic importance—first in its collateral connexions and dependancies—and first in its immediate concernment with the necessities of every living unit in our whole population, stands out in strong relief, the great Agricultural interest. We repeat our question, that it may be answered by the event, will no man "good and true" be found to present its claims, discuss and urge them, suggest the means for the elevation and advancement of our agriculture, and demand the corresponding action to carry these means into effect? Will not many members be found to participate in a work so laudable? Will not the Legislature, in a body, leaving the interests of party and other subordinate objects to rest for a time, recognize, at last, its obligations to take hold of this momentous subject, so deeply interesting to the constituency of each and every member? Fresh from the people—the honest farmers whose votes bestow all our elective offices—will our new Legislature perpetuate the system of neglect and ingratitude to them which has so long prevailed in our State? The crisis is at hand, when the question must be answered. Will that crisis pass away, and leave our agricultural interests as they were? Or will it constitute an era in our history, dating the commencement of new impulses in the improvement of our husbandry and of new and additional resources to the wealth and prosperity of the State?

Daily value of sunshine.—The value of the agricultural products of the United States cannot be less than $500,000,000 annually. The perfection of this is depending on the weather of four months, June, July, August and September, or about 120 days. Every one knows that without sunshine the crops would be a failure, either partially or totally; and hence we can estimate its average daily value at about *four millions of dollars daily*. There can be no doubt that, considering the nature of the previous weather, the beautiful days preceding the 20th of July, added from ten to fifteen millions daily to the value of our agricultural products; yet like many other good things, the very commonness of this invaluable and powerful agent, causes it to be overlooked, and its results undervalued. Without sunshine the earth would soon become another chaos, destitute of order, "without form and void."—*Gen. Farmer.*

Tincture of Roses.—Take the leaves of the common rose, place them, without pressing them, in a bottle; pour good spirits of wine upon them, close the bottle, and let it stand until it is required for use. This tincture will keep for years, and yield a perfume little inferior to the otto of rose; a few drops of it will suffice to impregnate the atmosphere of a room with a delicious odor.

From the Genesee Farmer.

INSECT DEPREDATORS.

Of the insect tribes there are many that occasionally prey on the vegetables produced by human labor, some making their appearance at one season, or in some particular year, while others are irregular in their visits, and at times disappear for years in succession. Occasionally, too, new depredators make their appearance, or as is most probable, first attract notice by the mischief they produce. Some insects feed only while in the larva state, and hence the mischief they occasion is performed while in that stage of their existence. Others spend their larva state inactive; but while existing as perfect insects, are most destructive; while a few are injurious in both of these states. Thus it is, the larvæ of the Hessian fly, the cut grub and army worms, that occasion such loss to the farmer; while the chinch and rose bugs, the grasshopper and locust, are injurious only while they live as perfect insects. A knowledge of the history, habits, periods of existence, and depredations of the most formidable insect depredators is very necessary to all cultivators, and we may be permitted to hope that this desideratum will be supplied by the gentlemen who are now, by authority, engaged in investigating the entomology of some of the principal states.

Few years pass, in which, on the whole, more injury is not sustained from these pests of agriculture, than has occurred in the present. Some districts have, it is true, suffered severely, but the insect visitation has not been general, or unusually destructive where it has occurred. The three principal depredators of the present year have been the Hessian fly, the chinch bug, and the army worm. The first of these has scarcely been noticed, and has produced no injury worth mentioning, except on the tide water districts of the middle and southern states. Here it was very prevalent, and for a time created much alarm. At harvest, however, the damage, though considerable, was found to have been overrated; the very fine weather bringing the crop forward in spite of the fly. It has hardly been mentioned north of the Delaware. The chinch bug is peculiarly a southern pest, very destructive to crops, and its orrigin habits and transformations, judging from the little we have been able to find respecting it, does not appear to be at all understood, even in those districts where it is most prevalent. These districts are what may be called the first table lands of the south, or those lying between tide level and the first ranges of highlands. It is described as making its appearance in immense numbers in the woods, from which it spreads in every direction, attacking indiscriminately wheat, corn, and indeed the most of the cultivated grains and grasses. No method as yet has been found effectual to arrest their progress. Though provided with wings, they rarely use them, but march forward on the earth, feeding on whatever attracts them during their progress. Their disappearance is as sudden as their appearance, and apparently equally involved in mystery. An investigation of the habits of this insect is well worthy the study of the southern man of science, as its frequent appearance, and the loss it occasions, render it a formidable enemy to the farmers of the districts in which it most prevails. The army worm is the name given to the larva or caterpillar produced by some one of the countless family of the moths, though what one, does not yet appear to have been ascertained. It has received its name from the numbers in which it appears, the seeming order and regularity of its movements, and its destructive voracity. Wherever it appears, and whichever with the dense masses are directed, vegetation disappears with astonishing celerity. Before, is the garden of Eden; behind is a desolate wilderness. The present season it has done much injury in Illinois, parts of Indiana and Michigan; and a few have appeared west of the Mississippi. A few years since it committed fearful ravages in Ohio. No accurate description of this depredator appears to have been published; and for the purpose of aiding in calling attention to the insect in question, we should be much gratified if some of our subscribers in those districts where it is, or has been most abundant, would furnish us an account of the worm, its appearance, ravages, the miller or moth that produces it, if known, or any other particulars that may be interesting in elucidating its character and history. The only method of checking the march of this insect yet discovered, is to plough a deep furrow across the line of progress, or around the field to be preserved from them, keeping the sides smooth with the hoe, and the worm falling into this furrow, is unable to escape, and perishes. The numbers so destroyed in a single trench, is almost incredible.

HINTS ON DOMESTIC ECONOMY.

ORIGINAL AND SELECTED.

Carpets, which are not intended for elegant rooms or which are purchased on the score of economy, are best with a small pattern; because in sewing the breadths together, it requires less cutting to make the figures match, and also, when getting old, patches are less conspicuous. As it is always bad, both in point of economy and appearance to mend what is old with what is quite new, it is advisable, in furnishing a house, to have a large and a small room carpeted alike, that when the former is partly worn out the latter may be used to mend it.

Paper Carpets.—The following has been recommended as a good and cheap carpet. Where labor is cheap, the cost will be comparatively trifling, the chief expense consisting in putting the materials together. It is formed in the first place by cutting out and sewing together, waste pieces of linen, cotton, canvass, or other similar material, so as to form the required size, then stretching it upon a large floor, and pasting it at the edges with thick strong paste to the floor to keep it tight.* Cotton, if used, will require to be previously wetted. When the cloth becomes dry, paste on two or more coats of coarse strong paper.—Waste wrapping paper may be used. Then finish by laying on with paste a coat of hanging paper, or any other, according to the fancy. When it is thoroughly

* The best paste is made from rye flour, always preparing it by boiling, and the addition of alum renders it still stronger.

dry, it should receive one or two coats of size or glue, which should be put on hot, and every part well soaked or covered with it, to prevent the oil or varnish from penetrating it and spoiling the color. When the size is quite dry, it should have one or more coats of boiled oil, which, when dry, will form a good varnish. An additional coat of copal or other varnish will still further improve it. When dry, the carpet is completed. When they are needed to be removed, these carpets will roll up with nearly the same ease as oil cloth. They are quite durable, and very easily cleaned, and if made with well selected patterns, present a handsome appearance. The papers used should have sufficient size employed in printing them, to enable them to withstand the effects of the size when applied to them, otherwise the figures will be injured unless great care is used.

The following method of giving a very superior kind of white-washing to the walls and ceilings of rooms is described in *Partington's Builders' Guide.* Procure a quantity of very pure lime, and silt it through fine linen; pour it into a large tub or other vessel furnished with a spigot or wooden plug at a height equal to that which the lime occupies. Fill the tub with clear spring water; beat or stir the mixture well with a wooden stick, and then allow it to settle for twenty-four hours. When this period has elapsed, open the spigot, and allow the water to run off; then supply the tub with fresh water and continue the operation several days, until the lime remaining attains the greatest degree of whiteness. When you allow the water finally to run off, the lime will be found in the consistency of paste; but when used, it is necessary to use a little Prussian blue or indigo to relieve the brightness of the white; and a small quantity of turpentine, to give it brilliancy. The size proper for it is made of glove leather,* with the addition of some alum; and the whole is applied, with a strong brush, in five or six layers, to new plaster. The wall is rubbed strongly over with a brush of hog's bristles, after it has become dry, which gives it its lustre and value, and makes it appear like marble or stucco.

Genesee Farmer.

* It appears not to be very generally known, that one of the best materials to cause common white-wash to adhere firmly, so as not to be easily rubbed off, is size or glue.

From the New England Farmer.

SPANISH OXEN—WORKING COWS.

A gentleman temporarily resident in the Havana, who is a very competent judge, states that the oxen in that country are of a superior character, They draw entirely by the horns, and are, properly speaking, not driven but led by a boy, who preceeds them, holding a rope fastened in a ring, which is passed through the cartilage of the nose; and they are trained to walk with as much speed as horses.

Every one who has seen an ox trot or run, must be satisfied that they were never formed for racers. Yet undoubtedly they might be trained and with advantage, to move much faster than at their ordinary gait among us, which is proverbially slow. It is worth considering whether the habits of thought and action among a rural population bear any correspondence to the habits of the domestic animals with whom they associate; and whether the habits of people accustomed to the quick movement of horses in working and riding, are not more active, spirited, and enterprising than of the people accustomed only to the slow movements of oxen, who as they are often trained and driv- do little more than creep.

It would seem to be time to get over the absurd prejudice which prevails among us, against working cows. On small farms especially, where the expense of keeping an ox team is always heavy, it would be a great gain to use them in this way. In many parts of Europe they are so used, and certainly may be so used with as much propriety as we use mares; who, with the exception of certain seasons, are as useful as horses—indeed more active and spirited, and quite as enduring. In respect to cows, all that would be required would be extraordinary care and kindness when far advanced with calf, and entire release from work for a short time before and after calving. The extraordinary feed which we could then afford to give them, would enable us to get almost as much milk from them as we now get. We wish some intelligent and respectable farmer would make a fair experiment in this mater. But with existing prejudices, which we know it would be very difficult to overcome, a man would almost as soon be seen driving a team of women in harness as a team of cows. We must beg pardon for the homely analogy or for even so much as hinting the possibility of, not to say the want of gallantry in the thought of driving women in or out of harness. It may sometimes be possible to lead them after the Havana fashion, with a silken cord. We presume to hazard no advice on the subject however.

PUMPKIN SUGAR.—It is said that an important revolution is about occurring in France, in regard to the manufacture of sugar; and that a large capitalist intends to erect an extensive establishment for the manufacture of sugar from pumpkins, experiments having shown conclusively that it may be obtained from this vegetable in abundance, and of a superior quality. There is no doubt that sugar of good quality may be made from the pumpkin. We have never seen such an article; but the manufacture of pumpkin molasses was not an uncommon thing in New England, fifty years ago. When the price of this article took a rise, in consequence of the insurrection in Hispaniola, and the embarrassment resulting therefrom to the trade between that island and the United States, many families, within our knowledge, supplied themselves with molasses from the products of their own grounds. Large quantities were made from sweet apples, from corn-stalks and from pumpkins. That made from apples was considered the best. The pumpkin molasses had what was called the *punkiny* taste, and the produce of the corn-stalk was always inctured with a *sickish* flavor not altogether unlike the taste of liquorice.

EDUCATION OF FARMERS—No. 4.

NATIONAL IMPROVEMENT.

Mr. Tucker—The fact, that more than three-fourths of the community belong to the class of farmers, identifies with their character and influence, the happiness and the liberties of our country. It is evident that our republic must be, both in its character and destiny, what they make it, and what they say it shall be. I propose, in several short essays, to invite the attention of your readers, and especially those directly concerned in case, to the physical, intellectual and moral power of farmers, and to give a few hints on the kind of education necessary to increase and direct that power, for the highest prosperity and for the liberties, not only of themselves, but of every other class of American citizens.

In the few remarks I have to make on the subject, I shall attempt to sustain the following propositions.—First, that a greater amount of really useful knowledge is, at present, in the possession of farmers, than of any other class of the community. Second, that neither merchants, nor lawyers, nor physicians, nor clergymen, nor professors of colleges, possess so many facilities, or so many inducements for becoming men of sound and extensive knowledge, as farmers. Third, that the teachers of common schools ought to consist, principally, of farmers, who should pursue, for a course of years, the profession of teaching in the winter, and farming in the summer; the summer schools, generally, to be under the charge of females, and when winter schools are large, the small children to be under their charge in that season also. Fourth, that three-fourths at least of the offices in the general government, including the presidency of the United States, ought to be held by *practical farmers*, who have an experimental knowledge of wielding the plough, the scythe, the hoe, and agricultural implements generally. Fifth, the entire practicability and the vital importance of farmers taking their own education and legislation, into their own hands.

As the result of observation and an extensive intercourse, in all sections of the country, with almost every class of the community, I have been convinced of the truth of the above propositions, and others of a kindred character; also that from misapprehending or disregarding them, have arisen many, if not most of the evils which we suffer, in the intellectual, moral, religious and political character of our nation. As the convictions upon my own mind have been produced, almost entirely, by the '*force of truth*,' in opposition to pre-conceived opinion, I have some reason to believe that the same convictions will be produced by the same force upon other minds, if the subject should be carefully and candidly examined by them.

It is too evident, that the operations of our republic, political, civil and religious, are subject to great irregularities, and even violence, and of course that some better balance wheel or regulator, than we now have, is necessary to equalize, if not to continue their motions. Education has been sought, and professedly applied, for the purpose of regulating and continuing these motions; but in that there is evidently, so far, some defect—probably two defects of a radical character, viz: Education is not general enough, and it is not good enough. It does not reach every plain farmer's son and every poor mechanic's daughter: it also wants a soul, or moral principle, as the foundation stone, or the central and main wheel of motion, of all motions, whether applied to state, church, or common business.

And it may fairly be questioned, whether some of the measures to remove these defects, have not increased them. It is exceedingly doubtful, whether our numerous colleges and high schools, established at great expense, and to some extent at least by the *people's money*, and still incurring an expense too great for the people generally to participate in their instructions, have not produced an aristocracy of learning, (I do not mean useful knowledge) which has unfitted young men for the industrious and productive pursuits of life, and thus lead them into professions or pursuits calculated to increase, rather than relieve the burthens of society. Whatever else many of our literary institutions may be called, they cannot be called schools of industry, morals, health, or a knowledge of business; for with many young men, not to say young women, who resort to these institutions, all these valuable qualities are laid prostrate.

There is too much reason to believe, that many of our literary institutions, which have been largely endowed and largely patronized by the liberality of the public, and certainly from the best motives, are, after all, little else than institutions by which the poor educate the rich, and educate them in such a way, as to be under the necessity of supporting them, and that too in a very expensive manner, when their education is completed. Notwithstanding the fact, that a certain amount, and a large amount of literary and scientific labor is equally necessary with labor upon the farm, or in the workshop, it is still evident that a class exclusively literary may be too large for the greatest prosperity of the public. It is still more evident, indeed greatly to be lamented, that a large portion of those who

receive the benefit of our public institutions, and in doing so, virtually give a pledge that they will return these benefits upon the public, by their future pursuits, live and grow rich by exciting the follies, or inflaming the passions of the innocent, the unsuspecting, and the industrious portions of the community.

Is there any remedy for these evils? or must all be given up for lost? If it can be shown that farmers, *every farmer*, can with scarcely going from his farm, procure for himself a better education, more extensive, more thorough, and more elevated, than is or can be procured at high schools or colleges, and by that means more than three-fourths of the community have, almost without expense, the advantages of schools of industry, of morals, of health and sound knowledge, and of course sound legislators, produced 'to *legislate for themselves*,' a partial remedy, at least, would be found, for the numerous evils which now disturb and threaten our republic.

That these privileges may be enjoyed by farmers, and these blessings realized, both by them and all other classes of American citizens, I shall attempt to show, by the views and facts which I propose through your columns, to present for the consideration of your readers.

In the mean time, as ever, I shall remain, with high esteem,

Your friend,
J. Holbrook.

From the Geneseee Farmer.

WOOL.

Few are aware of the importance of this article, as an item in our productions; or the amount which it already reaches in the sum total of value. Two years since the number of sheep was estimated at twelve millions, it is now not less than fifteen millions. Allowing the estimate of three pounds per head, the clip of the present year would be forty-five million pounds of wool. We have been careful observers of the price of wool, and find it has ranged from 40 to 60 cents per pound, some few lots going above, as some have fallen below, the prices named. To be sure of being within the amount, we will take the average at 45 cents, and at that rate, the last clip of wool would be worth more than twenty millions of dollars. Yet this is but one item in the productive industry of the north.

At the present prices of sheep and wool, the business of growing them is a profitable one; and we think may with safety be calculated upon as a good one for time to come. Wool of good quality could hardly fail to pay as an article of export to England or France, should present prices abroad be maintained, and the supply for home consumption in this country be exceeded. To prove that growing wool is a good investment of money, we have only to look at the cost, expenses and returns of a flock. A flock of good ewes, with proper management, will hardly fail of doubling their numbers within the year, and if to the sales of the wool the value of the lambs is added, it will be seen, after deducting the expenses of keeping, that a handsome profit remains. But to have good sheep, or good wool, more attention must be paid to them than is usually given. Sheep that get their living by hook or by crook; that are allowed to gather in their fleeces all the burdock and other burweeds that line too many of our roads and fences, and fill our woodlands; that are exposed to all the vicissitudes of our severe and variable climate without shelter; or barely make a live through the winter, cannot be expected to raise many lambs, or produce good wool. Wool and silk are to be the great sources of our supply of clothing hereafter, and their importance to the country will be proportioned to their general use.

Comfort of Animals.—Unquestionably, an animal may be well fed, lodged and cleaned, without being comfortable in every respect; and in brutes, as well as man, want of comfort operates on the digestive powers. If the surface of a stall in which an ox or a horse stands, deviates much from a level, he will continually be uneasy and—will be uneasy during the night, if its surface is rough, or if a proper bed of litter is not prepared every evening for him to repose on. The form of racks and mangers is often less commodious than it might be. A hay rack which projects forward is bad; because the animal in drawing out the hay seeds fall in its eyes and ears; and this form, it may be added, is apt to cause the breath of the animal to ascend through its food, which must, after a time, render it nauseous. For this reason, hay should lie as short a time as possible in lofts, but when practicable, be given direct from the rack.—*Yankee Farmer.*

Poultry, Houses, Yards, &c.—The situation of the poultry house should be dry, and exposed either to the east or the southeast, so as to enjoy the sun's rays in the winter as soon as he rises above the horizon. —*London.*

Where a set of houses are intended, then a situation should be fixed on, near or close to the farm yard, and with ample space around for the fowls to disperse over in the day time, and one or more ponds for the aquatic sorts. All must have access to a gravelled yard and to grass for range, and have clear water near. Great attention should be paid to cleanliness and white washing, not for appearance, but to destroy vermin. —*Arthur Young.*

From the Farmer's Cabinet.

POULTRY.

The rearing of poultry produces much profit on a small investment.

Those who increased their stock of poultry during the past year, have been reaping a rich reward in return for their increased attention to this interesting branch of domestic economy. It has brought a very generous price, and eggs have been not less liberally paid for. Many chubby boys and rosy-cheeked girls have often had their hearts made glad, when "father" has returned from market, and announced the *grand* price for which he sold the turkeys, the ducks, the chickens and the eggs; for there is in many farmer's families a perquisite arising from sales of this description of stock, which inures to the younger branches of the family as a reward for their ingenuity, care and industry, in attending to the rearing and protecting the poultry, and an encouragement to future good conduct and obedience.

The multitude of grass hoppers which inundated the country last summer, with myriads of other insects, furnished an abundant supply of meat for the fowls, without apparently reducing the supply of it, and there was but little necessity for giving them other descriptions of food during the season. A farmer who regularly attends market, sold during the last year, poultry and eggs to the amount of about one hundred and fifty dollars, and the expense incurred in their production was so small as scarcely to be appreciable; this should encourage others to do likewise, and they will have their reward proportioned to their works.

Guinea fowls make an agreeably variety in a poultry yard, and they furnish more eggs than common hens; they sell well in market without being picked, and their vigilance in guarding against danger, and the great alarm they sound when it approaches, so terrifies the hawk, that he rarely ventures to pounce on a chicken when guinea fowls are in the vicinity. Some people rear and keep them on purpose to guard the poultry from the depredations of their enemies, and it is thought they find their interest promoted by it.—Rome was once preserved, it is said, by the noise made by geese producing an alarm amongst the inhabitants in time to preserve them from their enemies, who were approaching. The writer of this recollects a case that occurred many years since of a barn being preserved from being fired by an incendiary, by a flock of geese, which were aroused from their slumbers by him as he was about to execute his vile purposes; this was afterwards testified to by an accomplice in the intended mischief. I state these facts in order to let young people know that geese have been of some use in the world besides furnishing us with good feather-beds, and quills to make pens.

Those who design to profit by raising poultry the approaching season, should give attention to it early in the spring and follow it up with vigilance and care until the young ones are well feathered, when they will require but little attention. There should be always a shelter provided for fowls whether they be old or young, and those farmers who are destitute of proper winter quarters for their poultry should not let another season pass by without making suitable provision to protect them from the inclemency of the weather; for with proper winter protection eggs would be abundant all the year, and what pays a better profit than eggs?

OVA.

From the Farmers' Cabinet.

FAT MUTTON—ROOTS.

For a number of years I have been in the habit of attending the Philadelphia market, principally with mutton, and as I always personally superintend my sheep and other animals on the farm, and saw that they were regularly and sufficiently fed, I generally brot meat that I was not ashamed of, and which by its good quality recommended itself to purchasers, insomuch that I had no difficulty in securing a set of good customers, who cheerfully paid a fair price for a good article. Some of my neighbors attended the same market—but as I generally sold out first they thought I was "uncomon lucky." Four years since I obtained a quantity of the seed of the French sugar beet, and put in an acre by experiment, not in the way of making *sugar*, but the making of *fat*. This first trial fixed me. My cows, sheep and hogs were very fond of them, during the long and severe winter which followed. They all kept in good heart and condition; what surprised me most was the rapid manner in which my sheep, fed on the sugar beet, took fat; and when carried to market the saddles excited particular attention, from their very superior appearance. But it was not in appearance only; the meat was of a much better quality, more juicy and exceedingly tender.—The inquiry was, "why, sir, on what do you fatten your sheep?" And when I replied on the sugar beet, hay and a small portion of corn, it would generally call forth an exclamation of surprise. Ever since I have been a grower of the sugar beet, the meat I take to market is always in demand, and brings several cents more per pound than that fattened in the old way; and yet, strange to say, some of my neighbors, altho' I have been benefitted to the extent of several hundred dollars by the introduction of this root—the effects are visible—my neighbors know it—and yet they stand lookers on, halting between two opinions. But light is breaking in upon us, and of one thing you may be assured, that is, that the time is not far distant *when every extensive stock feeder will be an extensive root grower.*

To the delinquents, and there are many in my vicinity, I would say, "rouse ye from your lethargy, and although for the present season you have lost the advantage of planting the sugar beet and the mangel wurtzel, yet you may in some measure atone for your past neglect, by putting in immediately a sufficient quantity of ruta baga. You have time enough for this but none to lose. The ruta baga is an excellent root—plant it liberally—cultivate it thoroughly—and you will find your account in it in more ways than one, if you are spared until the ensuing winter. Depend upon it, there is nothing better for cattle, than roots properly prepared. I put in some of almost all kinds, and I find that carrots answer well for a change. But

with me the sugar beet is superior to all others. My way of feeding is simple.

When the cattle are housed they are kept constantly furnished with good hay, have roots three times a day with an occasional change to corn or cut feed. I find great benefit from currying my cows—indeed, it seems to me as necessary to curry a cow as a horse—and if any one will make the experiment as I did on two oxen, it will remove every doubt. They were both put up at the same time—fed precisely alike—and the treatment throughout was similar in every respect, except in the use of the curry comb, and the ox on which it was used was in *reality*, as well as in appearance, six per cent better than his fellow. The cause of this must be apparent to every reflecting mind.

N. I.

Delaware county, May 18, 1839.

From the Genesee Farmer.

HARVESTING CORN IN OHIO.

Mr. Editor.—As things that come from a distance, are generally esteemed more valuable than those produced at home, I shall venture to give our western method of cutting up corn, and let you manufacture it into what you like.

My plan is to put 120 hills in one shock; others put 144. I commence cutting two rows, advance ten hills, and then stop and tie four hills in the rows, I am cutting, in this manner, —|—. Then advance, cutting both rows laying five or six hills in a parcel, until I have advanced ten hills ahead; then stop and tie as before, and this makes twelve hills to a shock this way. I then count off eight rows, and commence on two more; then I proceed through the field, or lot intended to be cut. I then put up what is cut up between those hills, having their tops united in as even a manner as I can; set it as nearly upright as possible, placing the buts well on the ground, and in such a manner as to form a neat circle. The corn by this time is generally partially cured, so that I take a stalk or wisp of straw and tie the tops at a suitable height and distance. It is best to let this stand a day or two, in order that it may properly cure. After going through in this order, I commence and cut four rows to each row of shocks, two rows on either side, letting it cure as much as possible, but be sure to have it well set up before rain falls upon it. I prefer letting it stand a day or two in this state, as I have seen it mould some, if the weather should be damp. Then proceed with the remaining four rows in like manner, when each shock shall have received its due portion of 120 hills, be particular to set it upright and even around the centre, and the buts well settled on the ground. Now after the shocks have stood a day or two let two hands go carefully over the whole, righting every shock and stalk that may be out of place, and at the same time firmly tying each and every shock at a reasonable distance from the top with a bend made of rye straw, or made by taking four stalks; take off the ears, let each man take two, roll the blades around the stalks from but to top, then let them unite these by crossing their tops and breaking back the tops of each pair towards the but, and inserting the tops between the stalks. Last year I put up about 12 acres in the above manner, a great part of which stood out until May, and better or sweeter corn I never had, than I now have; I think not more than two or three shocks fell, so as to take damage. S. T.

Jefferson, Preble Co. Ohio, June 12, 1839.

From the Franklin Farmer.

There is no doubt of the correctness of the principle that improvement in quantity and quality of product may be effected by careful and judicious selection of seed. The principle is fully demonstrated in the practice of the writer of the following communication, so well known over the State as the able Secretary of the Senates, and not less deserving the equally honorable appellation of an excellent farmer.

A NEW WHEAT.

To the Editor of the Franklin Farmer.

It is well known that every kind of grain may be improved by a judicious selection of seed. Four years ago, my wheat, when ripening, was taken with the rust. Walking through the field, I discovered some stalks which had escaped the rust, and the grains were large and plump. I gathered them, and by sowing every year since, they have increased so that I have just harvested about twenty acres. Comparing this wheat with the common red chaff bearded wheat, I have ascertained these results:

1st. It stands the frost of winter much better.

2nd. It ripens several days sooner, and will generally escape the rust when the other will be injured by it.

3d. The product is greater. I am convinced if the whole of my crop for the last four years had been of this kind of wheat, I would have made *at least* one-fourth more.

4th. The quality is better, the grain is fairer and will doubtless make whiter flour.

JAS. STONESTREET.

TILLING THE EARTH.

In tilling the earth, some people go upon the same principle that regulates their business intercourse with men. They must be sure to get the advantage of the trade; and if this cannot be secured without, they must cheat and deceive the person with whom they deal.—And they think to practice the same deception with old mother Earth. You will see them on their grounds in the spring, as sly as dogs, apparently calculating that Earth has long ten the exhausting crops that were taken from her the last year—perhaps they will give a sprinkling of manure, and throw it on so as to make the Earth think there is a noble lot of it. Well, they go to work. But the Earth won't be cheated. She will reward every man according to his works, and *tell the truth in the autumn*. You cannot get the advantage of her, as you can with human customers. Treat her well, and she will reward your expenditures and toil; but attempt to cheat her, and she will make you sorry for it when harvest comes.—*Far. Cabinet.*

From the Farmer's Cabinet.

FARM HOUSES.

In a general travel through our State, it must be apparent, even to a casual observer, that very little skill and judgement has been manifested in times past, both as respects *location* and the arrangement or *plan* of farm buildings. No uniformity of building is observed in the country; and perhaps it would be impossible to adopt any one plan, however superior, as a great variety of circumstances would necessarily interpose; but the greatest obstacle in my opinion, is the great diversity of taste, and the overpowering desire of imitating *fashionable* methods. At present, and for some few years past, it has been the prevailing error, especially of those just entering upon the scenes of this busy life, to erect too large and expensive houses. Large sums that should have been expended in the erection of neat, substantial, and convenient out buildings for the accommodation of stock and the storing of produce, or applied to the purchase of manure for enriching the earth, have been needlessly and foolishly squandered in building up a fine showy house, and filling it with fashionable and costly furniture. One piece of extravagance begets another. Example is powerful. And in many cases where those who can well afford to spend thousands in the erection of costly buildings, do so, a neighborhood is infected, the weak minded brethren suffer, as they generally follow suit, and I have on more than one occasion seen verified the assertion of one of your correspondents, to wit: "*I have seen a farmer build a house so large and fine that the sheriff turned him out of doors.*" Who has not seen this? And again, who has not seen many a house standing in the country half finished, because the owner laid the foundations and erected the frame for one as large again as his wants required or his means would justify. These are evils that require prompt and thorough correction. False pride is at the bottom; it is the very root; it is a noxious plant, worse than the Canada thistle; it will not answer to lop off a branch here and there; there is but one way to rid ourselves of it, and that is to *tear it up by the roots.* Let our young farmers attend to this matter.

There are several requisites to be observed in building.

1. *Location.*—A healthy spot, near unfailing water, as near the centre of the farm as possible, and so as to overlook the whole. Although the farm may be very large, if so situated, the proprietor, when not in the field himself, may have a fair view of the operations of hands by the use of a telescope, although they may be employed in different parts.

2. The *best* materials are the *cheapest* in the long run; but no general direction can be given on this point, as the materials to be used must vary according to those abounding in the district in which the buildings are to be erected.

3. The plan should be well matured, and special regard be had to *economy, comfort, convenience, neatness,* and *simplicity*; discarding wholly the fashionable adornments of the day. Your cellars should be well ventilated, and flues so constructed as to let off the foul air in winter as well as summer.—Let the foundations of the buildings be laid well, but never where it is damp or springy. This is an insuperable objection. A dry situation is indispensable. A damp house can never be a healthy habitation. See to this matter, and submit to other inconveniences rather than to this positive evil. I would here recommend to all about building, reroofing their present buildings, to cause the shingles to be well saturated in a preparation of lime water for 36 or 48 hours. Dry them before putting on—and I hazard nothing in saying that so powerful is the antiseptic properties of the lime thus imbibed, that they will last double the length of time of shingles applied without the benefit of preparation.

4. The same general principle should govern in the arrangements of the garden, the small out buildings for poultry, &c., immediately in connection with the house and which are supposed to be mostly under the management of the female members of the family. It might also be well, while building, to appropriate a portion of the attic to a bee house.

I love to see a house well shaded—the fences and out buildings white-washed—the yard properly arranged, and in good order—"A place for every thing, and every thing in its place." This, of itself, indicates thrift, contentment, peace.

"Let order oe'r your time preside
"And *method* all your business guide,
"Ne'er till to-morrow's light delay,
"What might as well be done to-day;
"Neat be your barns—your houses neat;
"Your doors be clean, your court-yards sweet;
"Neat be your farms—'tis long confessed
"The neatest farmers are the best." B.

York, York county, Penn., May 12, 1839.

From the Yankee Farmer.

ON MANURES.

AND THEIR APPLICATION TO THE SOIL.

The hog pen and hog yard are generally considered the most prolific laboratories of manure that the farmer possesses, and it has long been an established maxim with some, "that one hog in this vocation is worth as much as two cows."

Hogs, while we are fattening them, will make rich a large quantity of loam, or straw, or old hay of any kind that will absorb the liquid parts and afford a protection from the sun and the air; but store hogs that are cheaply kept, make more show than substance; like some farmers, they will stir up a larger quantity of soil than they make rich; they stir and mix it up so effectually that when applied to crops it operates immediately and its strength is soon gone. We derive our chief advantage from it in the first season of its application. Such manure forces Indian corn forward, and gives us an earlier crop than any other stimulant in common use; hence this is rated higher in the scale than it should be; while manure from the horse stable has usually been rated too low.

Horse stable manure, when properly managed, I have found more durable than that from any other source. When improperly managed, or rather when wholly neglected, as it often is, it is about as valuable as dry chips that laid in heaps till they turned white. When thrown from the stable into heaps, and mixed with nothing but straw and litter, in a few days, unless the weather be quite cold, these heaps become so hot as to burn up every thing valuable in them. If it had not been removed from the stable; if the horses had been permitted to tread it down hard and stand and lie upon it, no fermentation would have taken place, and the mass would have laid uninjured for six months or more. When such manure is thrown out, it should be immediately carried to the field and ploughed in, or it should be mixed with a large quantity of soil or other substance to prevent its burning. The principal objection to keeping it under the horse, is the difficulty of keeping the animal clean. More room is required, it is true, but where a farmer keeps but one or two horses he will generally find it no difficult matter to sink the foundation of his stable by taking up the floor. Let his horse commence the winter season in a cellar in one corner of his barn, sunk four or five feet below the barn floor, or manger; let the scaffold above him be so high that he may rise three or four feet during the winter, and to assist him in this, let a plenty of straw, weeds, brakes, leaves of trees, potato vines, soil from the road side, or small chips from the door yard, be placed under him daily, that he may lie dry, and we find on trial that we obtain a more valuable heap of manure from a single horse than from half a dozen store hogs, as they are usually fed, with all the litter and other matters we can throw them.

You tell me "this is a very dirty practice, and you choose to keep your horse on a clean, hard plank floor, where you can curry him easily and keep his feet dry." My answer is, we expect to make manure in dirty places; but your horse may be kept clean by a little attention to littering. Our chief object is manure, but you must perceive that your horse would lie much more comfortably on litter than on planks—his feet will be in far better order for shoeing—he will escape the hoof ail and not be half so liable to lameness, and you thus secure a body of manure thoroughly moistened and impregnated with the *stale* of the horse, that contains a large quantity of ammonia, the most powerful and beneficial of salts.

It costs us no more to furnish refuse matter for the horse stable than for the hog stye. This manure thus kept, will commence fermentation just when you may please to remove it, and not before. It will endure and give evidence of its worth as long as any we make use of, and not a particle need be lost in the stable, being at once received and absorbed by the drier portions.

Now if your horse stood on a floor *over* a cellar, one-half of this valuable liquid is lost before it ever reaches a mass, there placed to receive it.—But generally, no kind of attention is paid to this liquid, which is the most valuable part of the manure.

W. B.

Causes of Seeds not Germinating.—Without a certain degree of moisture seeds will not germinate. On dry sandy soils, and in a dry season, it seems highly probable, then, that seeds may be deprived of the requisite degre of moisture. But the seeds may have germinated, and commenced to send out their roots and stem stalks, and yet be destroyed. If the soil is not pressed closely to the seeds, and very dry weather occurs just at this period of the process of germination, the root being too distinct from the soil, and too feeble to draw any supply of moisture, the liquid food of the plant contained in the fermented seed may be dried up, and the life thus destroyed.

If you would avoid disappointment and loss from seeds failing to grow, the preventive process is indicated by a knowledge of the causes most frequently productive of this result, which we think are those stated above. If you sprout your seeds before putting them into the ground you will preserve them from the first cause of failure, but if you pulverize your soil thoroughly and press it in this state with hoe, spade, or roller, upon the seeds thus sprouted, the root stem will soon and surely derive sufficient moisture from the soil.

In a few instances I have found my neighbors blaming the seed as useless, particularly of onions, carrots and parsnips, when I have obtained a little of the same seed, and found it to sprout quite well. You may easily save yourself from such reflections, or from the temptation to blame others; steep the suspected seed in warm or tepid water from six to twenty-four hours, according to the size and hardness of the seed, and then setting it away in a warmish place for a day or two. If good it will sprout in this time; if kept warm in a darkish place, and it does not sprout in this time, the seed is faulty.—*Farmers' M. Vis.*

From the Farmers Register.

PROMISCUOUS

Theory—Amongst my readings on farming subjects, I frequently notice objections to theory; at which I am much astonished, for without theory there can be no practice. For my own part I am equally fond of theory and practice; if the theory is good, I put into practice, and if the practice is good, I continue it.

Practice—My practice is to carry paper and pencil in my pocket, and as an idea which I may consider of value occurs, I make notes; to which notes the public are welcome, as they cost me nothing.

Bush hay,—About two weeks past I had many large chestnut tree cut down for the purpose of making hay, but a succession of rains ruined my project. I did not, however, lose my labor, for the trees were worthless, consequently their destruction was proper. In the cource of a few days I intend again to try the operation, not on a large scale, neither on the chesnut, as the burs are now sufficiently large to be troublesome; but on a few young poplars and linn, growing on land which is to be cleared. The trees will lie as felled without further interruption, until the leaves appear sufficiently cured for keeping, when the twigs will be broken off by hand, and cast into small pils to be further cured by an additional day's sun, when they will be secured in the manner of other hay.—The leaves will no doubt be better hay than that of common swamp grass, and the twigs will be food, medicine, and manure. As to the quantity of such hay which may be gathered, I can, without experience only, have my opinion, and that opinion is this, that where the materials are abundant, hay can in abundance be made, at a cheap rate. In conversation with a neighbor a few days past, I was informed that he had, when a boy, seen the chesnut hay made and fed to cows, which kept them fat through the winter.—When a chestnut tree is cut down, the stump never fails to bear a great profession of sprouts, which if taken off annually and cured, would be excellent hay.

Cheat.—That wheat may become cheat, I have but very little doubt; that cheat does bear seeds and produce its kind I have no doubt; and that cheat will finally become a dwarf grass, I have but little doubt.—I once saw a field of new land which had been sowed in wheat, and close grazed by horses, yield nothing but cheat. I have often cut cheat for hay, and have seen millions of the seeds vegetate and produce their kind. I have sometimes picked the large cheat and other smaller kinds, down to the common greensward, and after arranging them as 1, 2, 3, &c. would challenge any ordinary observer to distinguish between any two contiguous numbers. This year I had a clover lot completely smoothed by the cheat, the seed of which was on the ground last year, which wishing to destroy I cut the cheat when yet in bloom, but I was cheated, for the seeds are now vegetating. When cut early, cheat makes a good hay, and next year I intend to cut so soon as the first bloom appears.

Ploughing. The lower the horse or ox, the nearer is the draft to the line of direction, consequently the less power required; the taller the horse or ox, the longer the lever, consequently the less necessity for the draft being in the line of direction; but is it not evident that if either a low or high horse or ox be ploughed with at a greater distance from the plough than is customary (thereby bringing the draft nearer to the line of direction) there would be advantage. I take no time to make calculations; but it seems to me, that according to the elevation of the shoulder above the plough so the power; if the shoulder could be brought to a level with plough, or directly in the line of direction, then no power would be lost; if elevated to 45 degrees, then half power is lost; if to 90 degrees then there is no power.

Elder.—Elder is considered a great pest, but it is a good food for sheep, and so long as they stay amongst it they are secure from flies.

Improvement by oats.—I have this year turned under fallow about 25 acres of oats, a portion of which was treated in the same method last year; the yield of which last mentioned was about thrice as much as that adjoining. The second crop is now growing finely, and if they do shortly have the benefit of two or three showers of rain I may make hay of some of the best.

ORCHARD GRASS.

The Cock's foot grass. (*Kactylis glomerata LD*) known in America by the name of Orchard grass is an important perennial, and grows generally on dry sandy soil. It is a native of the United States. This grass may be known by its coarse appearance, both of the leaf and spike; and also by its whitish green hue. It is probably better adapted than any other to sow with clover, or to be united for pasture. Its good properties consists in the early and rapid growth, and its resistance of the drought; but all agree, that to obtain its greatest value, it should be kept closely cropped. Sheep will pass over every other grass to feed upon it. If suffered to grow without being cropped, it becomes coarse and harsh. Col. Powell, of Pennsylvania, after cultivating it for ten years declares it produces more pasturage than any artificial grass he has ever seen in America. After being fed very close it has been found to afford good pasturage; after remaining five days at rest. It is suitable to all arable soils. It abounds in seeds which are easily gathered, on account of their peculiar lightness (the bushel weighing from 12 to 14lbs.) The seed should be spread on a floor and sprinkled with water two or three days before it is sown, that it may swell and more readily vegetate. Two bushels of seed are sown to the acre, or half this quantity with clover. The Orchard grass should be cut early, except intended for seed, as it diminishes two sevenths in the value as hay, by being permitted to ripen its seeds. It will bear cutting as early as clover, and the latter swath is very abundant. After preparing the seed for sowing, to mix plaster of paris is recommended. It is one of the most profitable grasses, and much of its success, depends upon the manner of sowing.

We noticed a few days since a small lot of this grass sown the last spring, a part of it had been cut and fed to cattle. Where it had been cut it was coming out again and promises to make another crop in good time. It will be recollected by those who observed it last season, that the orchard grass stood the drought better than any other; from what we have seen we are disposed to recommend it to our farmers and friends. But we would sow in land made rich with manure in preference to any other, if we expect to reap immediate benefit.—*West. Far.*

From the New York Farmer.

COMPARATIVE VALUE OF APPLES.

During the two summers and falls, my duty called me into the apple regions of the North. The following facts were obtained in reference to the subject.

Good eating apples are worth on an average, twenty-five cents a bushel. Eight bushels of apples make a barrel of cider, and twelve barrels of cider make one barrel of brandy. Brandy, at fifty cents a gallon, would give but fifteen cents per bushel! This on an orchard of one hundred trees, in ten years, would be over one thousand dollars. No allowance is made for capital and distilling. Take these into consideration and the loss is much greater.

It costs no more to raise good apples only suitable for distilling. Very often apples are worth one dollar per bushel, and the loss is immense by turning them into brandy. I am told that at Mobile apples are worth $10 a barrel.

Engrafting and budding will change the character of an orchard, and more than compensate for the time and amount lost, in producing the change in ten years.

Apples make most excellent food for horses. Several physicians of extensive practice in Connecticut and Massachusetts, feed their horses on apples and hay. I have never never seen fatter horses, more lively, and requires less grooming than that of horses fed on grain. Mr. Norton of Farmington, Connecticut, has the finest pair of horses I have ever seen. They are fed mainly on apples and hay. They travel very fast and seem to have both wind and bottom. It is proper, however to remark, not so much grain is given to the horses at the north as is customary at the South. One thing is worth noticing: horses fed on apples do not eat so much hay as those fed on grain. Very sour raw apples injure the teeth of horses; but when boiled they do not. The rule of feeding is to commence with a small quantity and gradually increase to a day for one year.

Apples are most excellent food for beeves. The fattest beef I have seen was made so with sweet apples.

Nothing will fatten mutton quicker than apples—It is necessary, or best, to cut up apples when fed to sheep.

Hogs care nothing for corn, if they can get apples; if sweet, the apples may be given without boiling; if sour, they must be boiled. Mixed with corn meal the flesh is harder.

Apples increase the quantity and quality of milk.—At first there was a prejudice against giving apples to milch cows, because it was thought they diminished or did away the milk. It is true that a gorge of apples, or any other green food, will cause a fever and dry up the milk; but given in proper quantities, the effect is quite different.

Cattle and hogs are purchased and fed on apples, and sold at a fine profit—when to fatten them on corn would ensure a loss.

Sweet apples and good eating apples are to be preferred as food for horses, sheep and cows; also for hogs, though some recommend a mixture of sour and sweet apples for hogs.

If these remarks should induce any to test their correctness by making a fair experiment, the object of my writing will be fully answered.

THOMAS P. HUNT.

From the Monthly Visitor.

HOW TO MAKE AGRICULTURAL PURSUITS PLEASANT AS WELL AS PROFITABLE.

For ages the employment of the husbandman has been looked upon as dull, uninteresting work. It has been thought to be a dull, plodding occupation of the hands and not of the head. And there has been too much foundation for such an impression. The agriculturist of years not long by-gone, did little with the head to dignify or enliven the work of the hands. A change for the better seems now near at hand. Perhaps in your day farmers may be generally more intellectual, more intelligent, and more able to bring the truths of science to benefit them in their manual labors, and to give them interest and delight in their occupations. But whatever others do, I hope you at least will take such measures as will convince yourself, if not others, that agricultural employments are as interesting, intellectual and pleasing pursuits as any with which they may be put in comparison. I know of no method by which you can more effectually render them so than by employing your mind upon your work. Most assuredly the more your mind is employed upon your work—in tracing effects to their causes, in accounting for failure and disappointment in understanding the operations of nature, in devising improvements, &c., the more interest you will take in your employments, and the pleasure and gratification you will derive from them. Moreover, this is not only the way to make your pursuits pleasant, but it is the way to make them profitable also. Your mental operations must be wrong-sided and injudicious indeed, if they do not lead you to the discovery of means whereby you can educe more produce out of any certain amount of labor and expenditure. The most intelligent farmers, you may easily convince yourself, if industry is not wanting, generally succeed in making their farms the most profitable. But what I wish especially to inculcate upon you, at this time, is, that you will feel more interest, more pleasure, more conscious dignity in your pursuits, the more you occupy your mind upon the subject.

Agricultural schools would aid in thus elevating agriculture.

From the Whip.

POWER OF THE HORSE.

A horse at a dead pull, or at the beginning of his pull, is enabled by the force of his muscles, to throw a certain weight into the collar. If he walks four miles in the hour, some part of that muscular energy must be expended in the act of walking; and, consequently, the power of drawing must be proportionally diminished. If he trot eight miles in the hour, more animal power is expended in the trot, and less remains for the draught; but the draught continues the same, and to enable him to accomplish his work, he must tax his powers proportionably.

The load which a horse can draw is about fifteen times greater than the power exerted, supposing the road be hard and level, and the carriage to run with little friction, and the horse, which, at starting, can throw into the collar a force equal to 216 pounds, will draw a load of 3,200. Let him, however, be urged on at the rate of ten miles in the hour—deduct the power used in swiftness of pace from the sum total of that which he possesses, and what remains? not a sixth part—not that which is equal to a quarter of a ton.

It is said that between Glasgow and Edinburg, a carrier in a single horse cart, weighing about 700 weight, will take a load of a ton, and at the rate of twenty-two miles in a day. The Normandy carriers travel with a train of four, and from fourteen to twenty-two miles in a day, with a load of ninety hundred weight.

An unparalleled instance of the power of a horse when assisted by art, was shown at Croydon, near London. The rail-way being completed, a wager was laid that a horse could draw thirty-six tons for six miles along the road, and that he should draw his weight from a dead pull, as well as turn it round the occasional windings of the road. Twelve wagons, loaded with stores, each wagon weighing about three tons, were chained together, and a horse, taken promiscuously from a timber team, was yoked to the train. He drew the chain of wagons with ease a distance of six miles in an hour and forty-one minutes. In the course of the journey he stopped four times, to show that it was not by any advantage of descent that this power was acquired; and after each stoppage he drew off the train of wagons with great ease. Four more loaded wagons were added, with which the same horse set off again with undiminished pace. Still further, fifty men mounted the wagons, and the horse proceeded without the least distress. After this trial it proved by the weighing machine that fifty-six tons, six cwt. and two quarters were the weight moved by this horse along the rail-road.

THE POTATOE CROP IN MAINE.—It is said that potatoes enough have been raised Maine, the present season, to supply the whole United States, and the crops generally are of the most promising description.

From the Journal of the Franklin Institute

EXPERIMENTS ON THE POROSITY OF A MASS OF COTTON.

Perhaps you may consider the following pretty experiment on porosity, worthy of a place in your Journal. Fill a common glass tumbler, or other vessel, completely with some spirituous liquor, so that a few drops more would cause it to overflow. This done, you will find no difficulty in introducing into the tumbler, so filled, *a whole handful of raw cotton.*

This experiment was suggested by the accidental recovery of some wet cotton from a boat which had been sometime sunk in the Tennessee river; it was found by the workmen that after they had squeezed out the water from some cotton, the vessel in which it had been contained, remained nearly as full as before the cotton was removed.

Spirits answers better than water, for trying the experiment, from the rapidity with which they are absorbed by the cotton. Several theories were started by persons who tried the experiment; such as, that the filaments of cotton occupied the vacancies between the globules of water; or that by its capillary action, the cotton subdivided the globules, and caused them to occupy a less space, &c.; to me, however, it appears to be accounted for more satisfactorily, by supposing the fluid to insinuate itself between the filaments of cotton and thus permit the latter to occupy no more space than is due to their actual solidity. The experiment is certainly a beautiful one. Very respectfully, yours, &c.,

JOHN C. TRAUTWINE.

Knoxville, Tennessee, June 11, 1839.

SOW PURE WHEAT—REMEDY FOR SMUT.—Chauncey Goodrich, Esq. of Burlington, Vermont, says,—"In your last number I noticed three communications on the culture of wheat; although they are all valuable, perhaps I may add a little to them. As to *smut*, I believe if clean seed is sown, the following preparation of it is an infallible remedy—also that it will soon eradicate all smut from foul seed. Soak the seed twenty-four hours in a strong brine, strong as it can be made, letting it cover the grain—drain it off and stir in fresh air-slacked lime until it is dry, when it may be sown. It is still better to have the wheat spread on a floor when the lime is stirred in, and let it be until fully dry, as the lime will adhere better to the grain. Wheat so prepared should not be passed through a smut mill, as the brine would then be sure to destroy a part, and if soaked too long, nearly all. Another advantage of soaking in brine is, that it is so much heavier than water, that oats and all light seeds will float on the surface, and may be taken off. I have known this practised twenty years on my father's farm, and by others, and never saw any smutty wheat from clean seed so prepared, even when adjoining fields would contain so much as to almost ruin the grain.—*Ibid.*